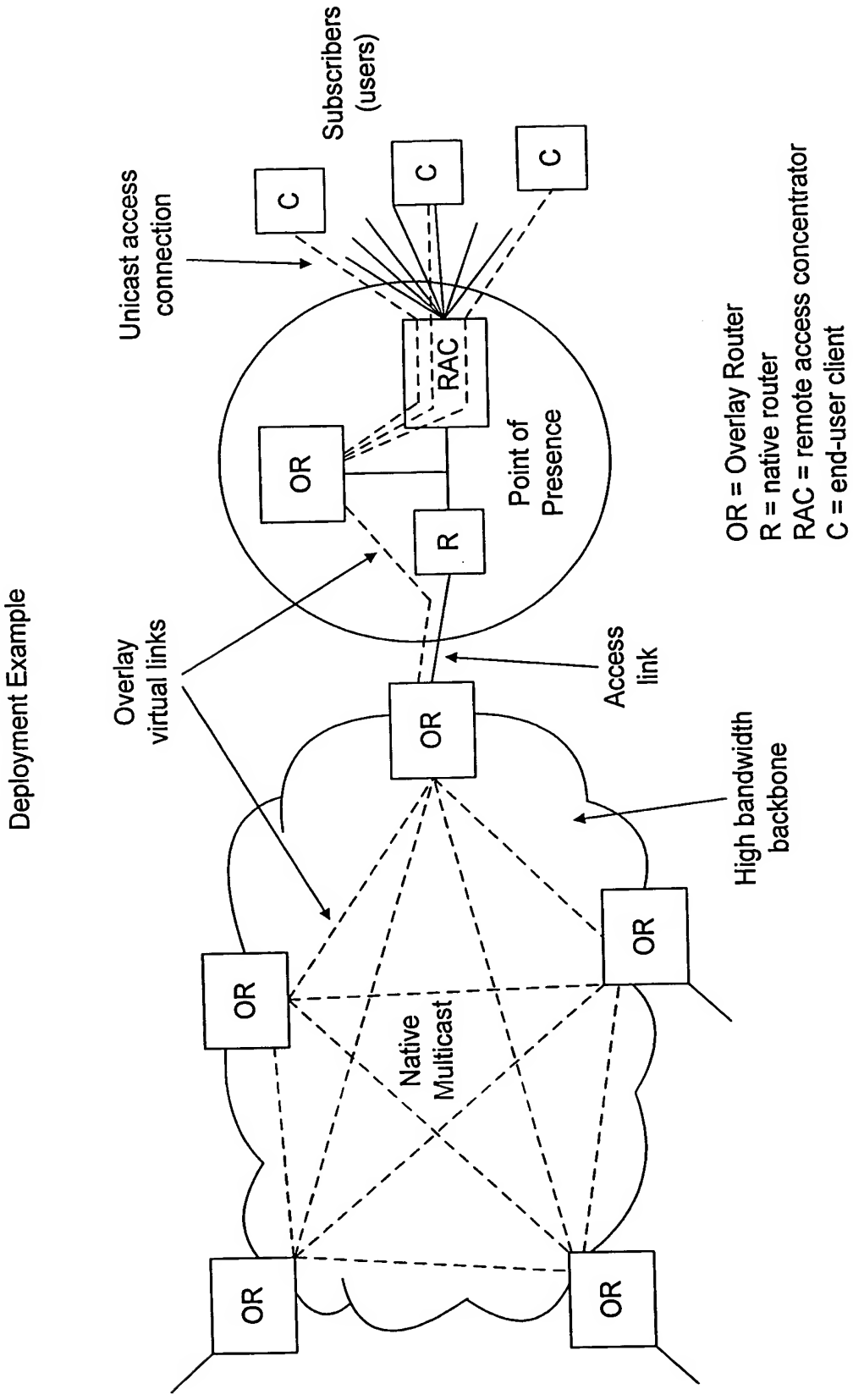
Deployment Example
Subscribers (users)
Unicast access connection
C
C
C
RAC
OR
R
Point of Presence
Overlay virtual links
Access link
OR
High bandwidth backbone
OR
OR
Native Multicast
OR
OR
OR = Overlay Router
R = native router
RAC = remote access concentrator
C = end-user client

Fig. 1

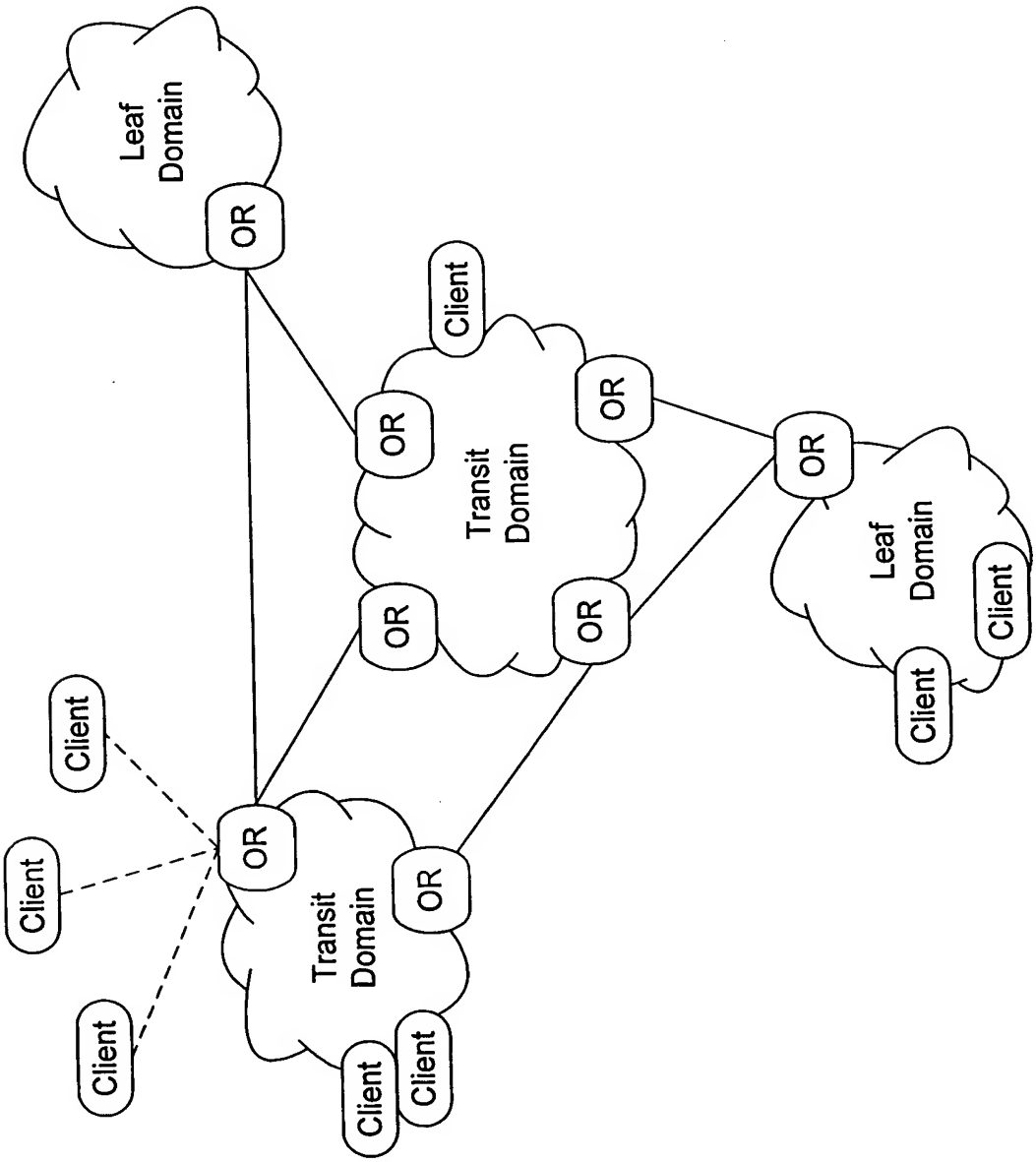

Figure 2: OMN Architecture

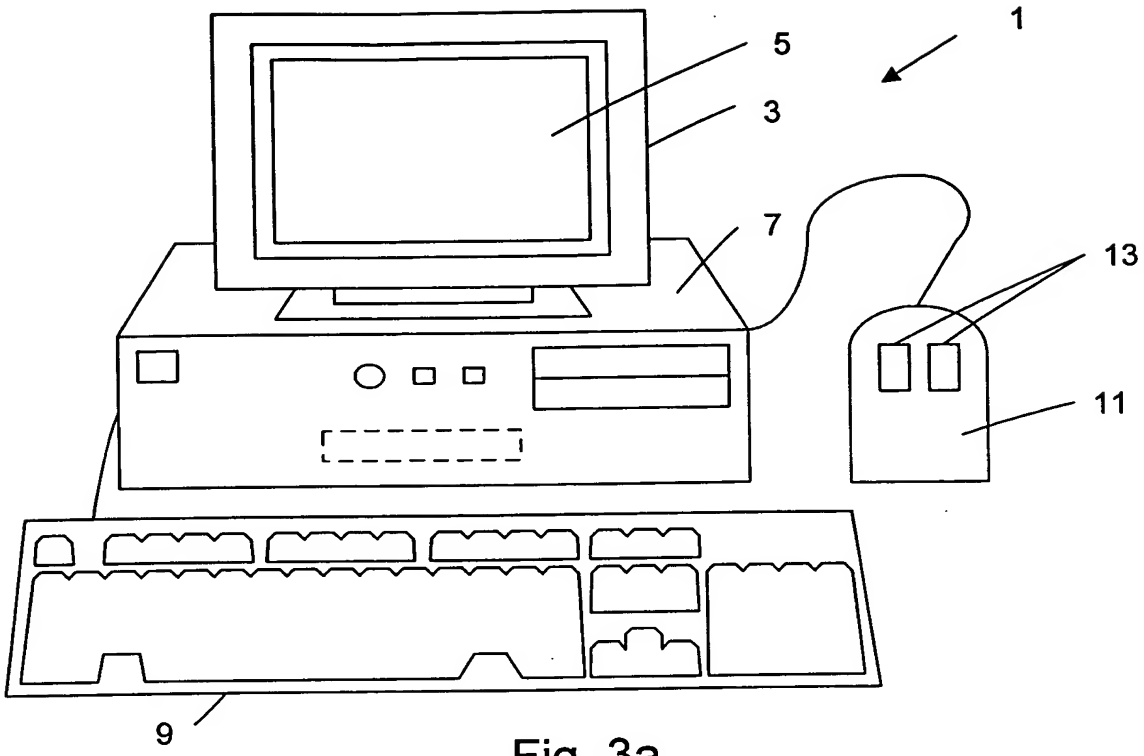
1
5
3
7
13
11
9

Fig. 3a

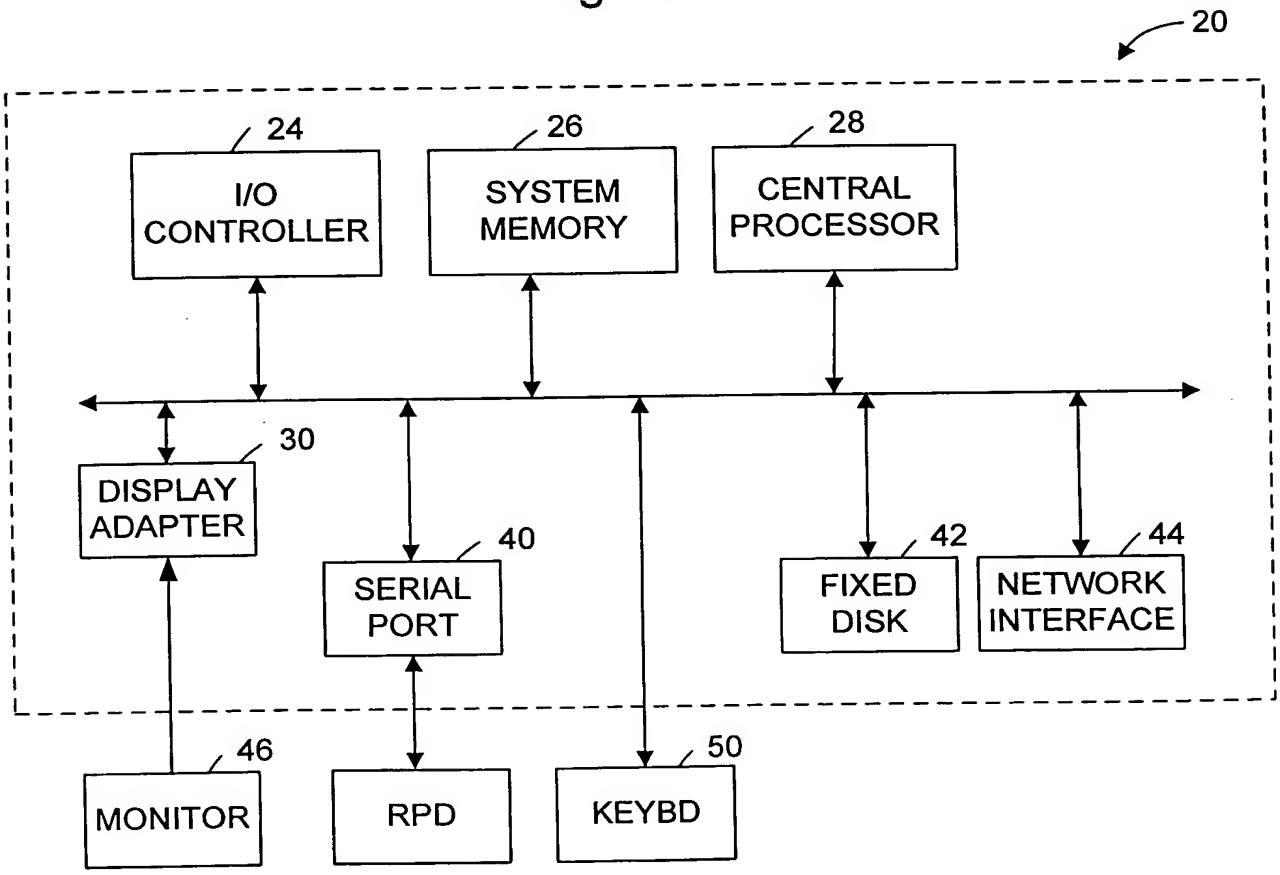
20
24
I/O CONTROLLER
26
SYSTEM MEMORY
28
CENTRAL PROCESSOR
30
DISPLAY ADAPTER
40
SERIAL PORT
42
FIXED DISK
44
NETWORK INTERFACE
46
MONITOR
RPD
50
KEYBD

Fig. 3b

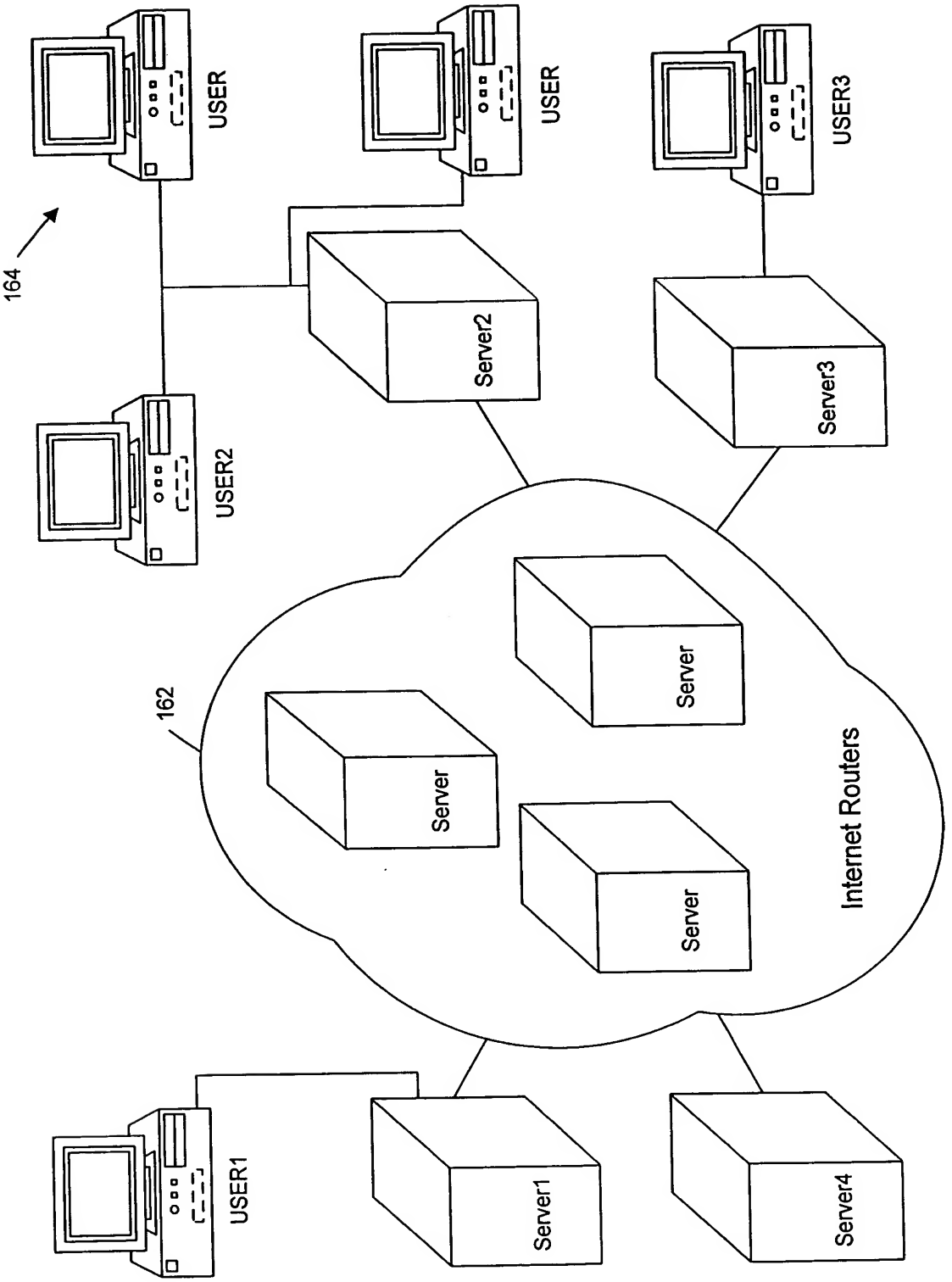
USER
USER
USER3
164
Server2
Server3
USER2
Server
Server
Server
162
Internet Routers
USER1
Server1
Server4

Fig. 3c

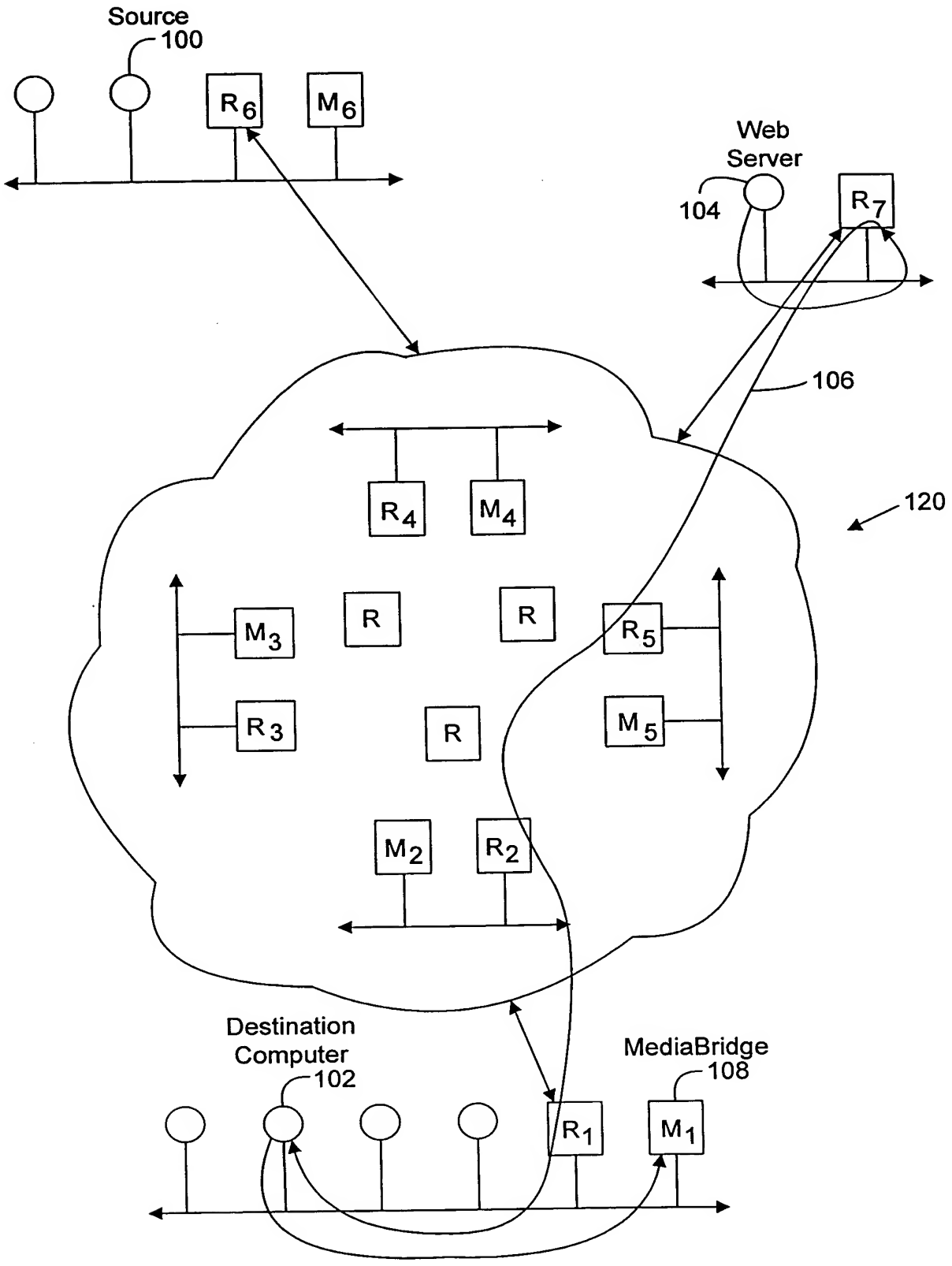
Source
100
R6
M6
Web
Server
104
R7
106
120
R4
M4
M3
R
R
R5
R3
R
M5
M2
R2
Destination
Computer
102
MediaBridge
108
R1
M1

Fig. 4a

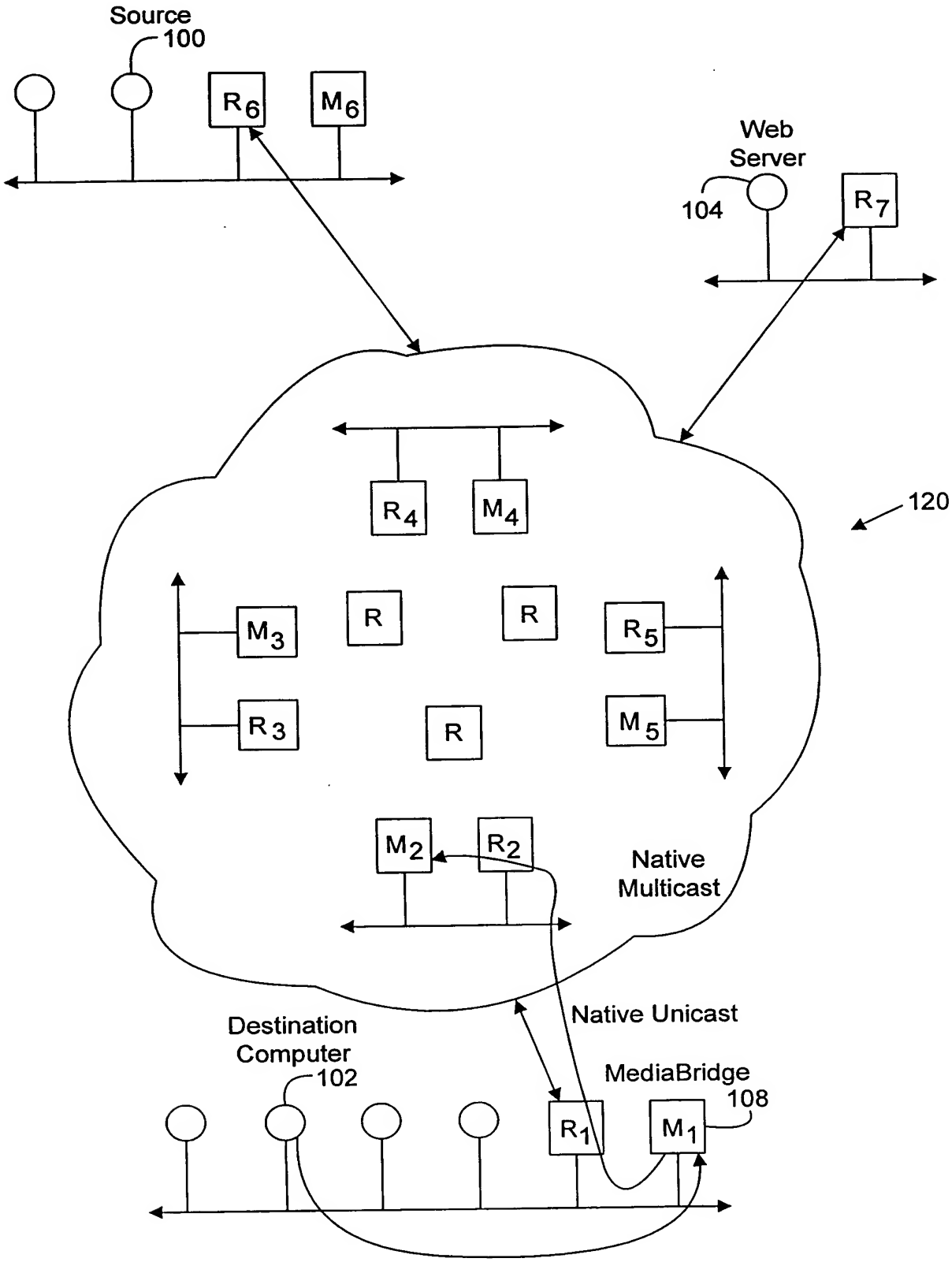
Source
100
R6
M6
Web
Server
104
R7
120
R4
M4
M3
R
R
R5
R3
R
M5
M2
R2
Native
Multicast
Native Unicast
Destination
Computer
102
MediaBridge
108
R1
M1

Fig. 4b

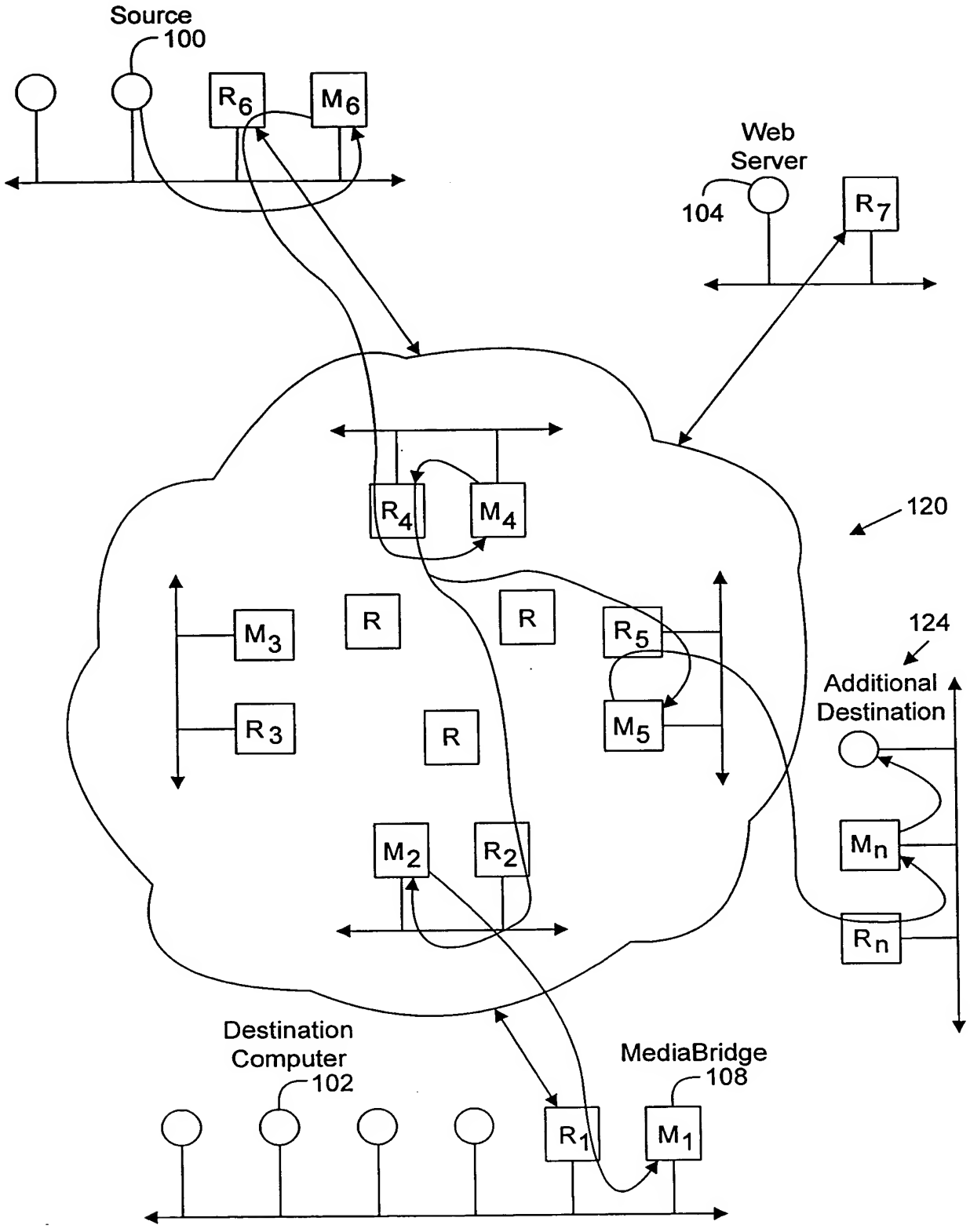
Source
100
R_6
M_6
Web
Server
104
R_7
120
R_4
M_4
M_3
R
R
R_5
124
Additional
Destination
R_3
R
M_5
M_2
R_2
M_n
R_n
Destination
Computer
102
MediaBridge
108
R_1
M_1

Fig. 4c

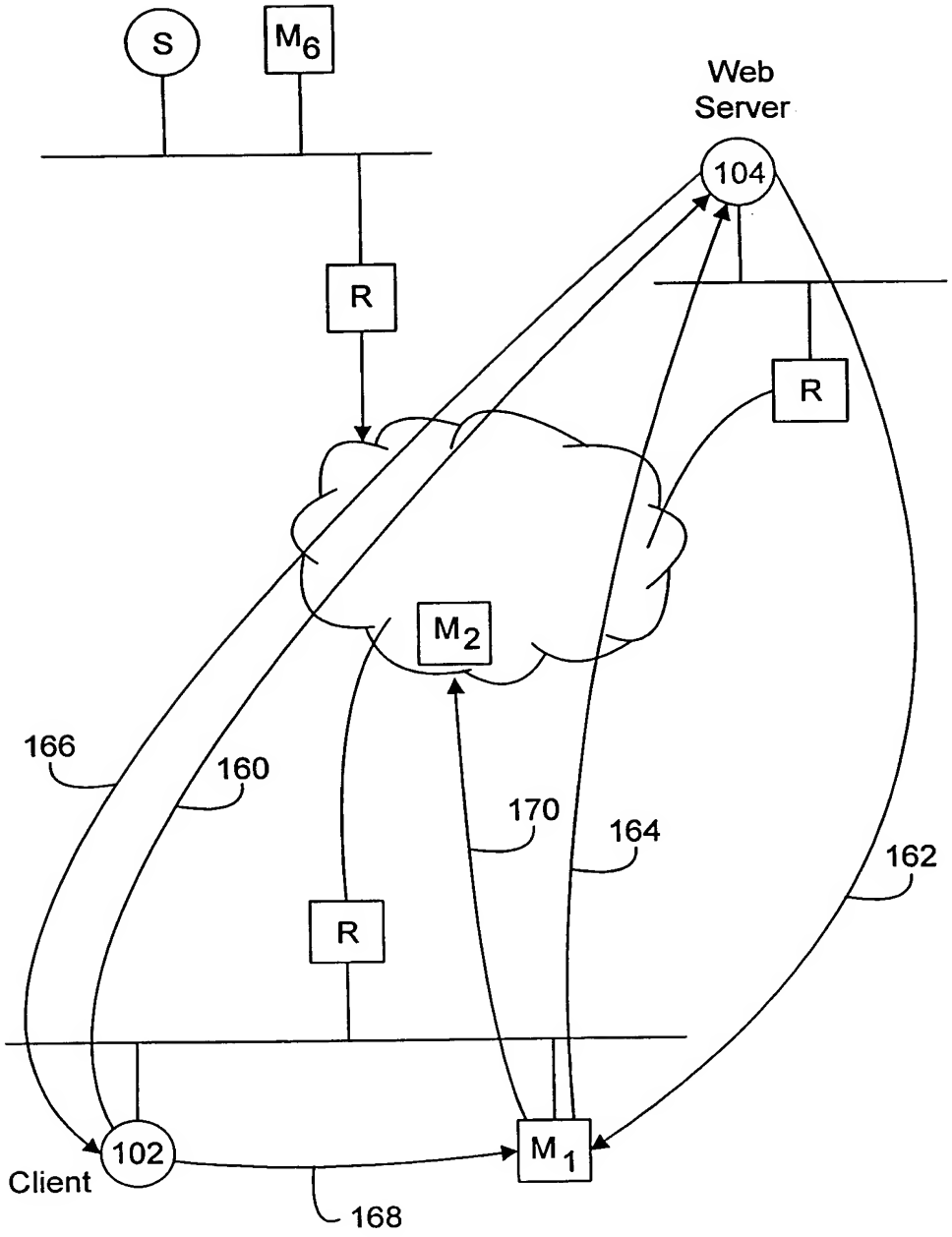

Fig. 5

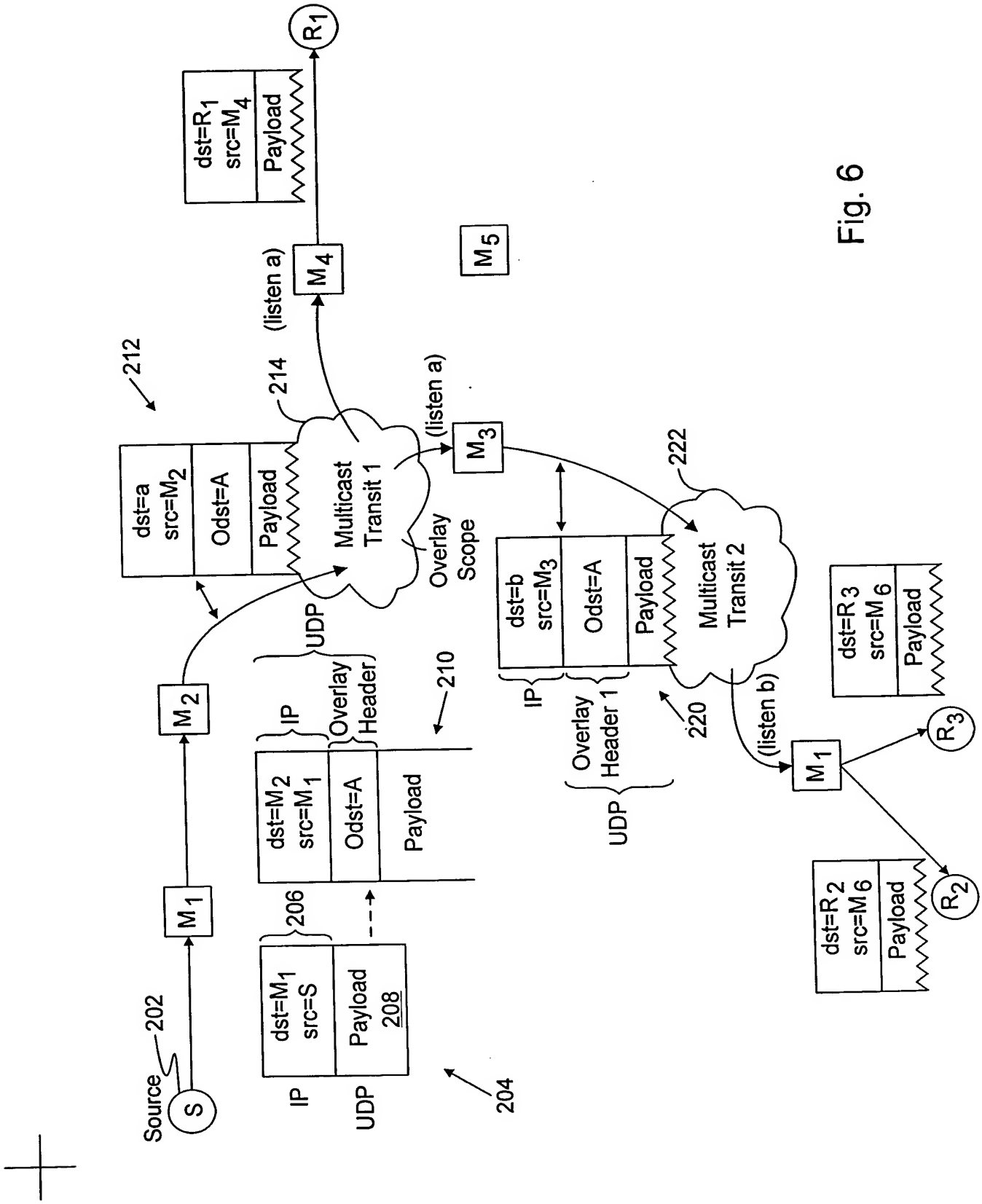
Source
202
S
M1
M2
M3
M4
M5
R1
R2
R3
dst=M1 src=S
Payload 208
206
IP
UDP
204
dst=M2 src=M1
Odst=A
Payload
IP
Overlay Header
UDP
210
dst=a src=M2
Odst=A
Payload
212
Multicast Transit 1
214
(listen a)
Overlay Scope
dst=R1 src=M4
Payload
(listen a)
dst=b src=M3
Odst=A
Payload
IP
Overlay Header 1
UDP
220
Multicast Transit 2
222
(listen b)
dst=R3 src=M6
Payload
dst=R2 src=M6
Payload

Fig. 6